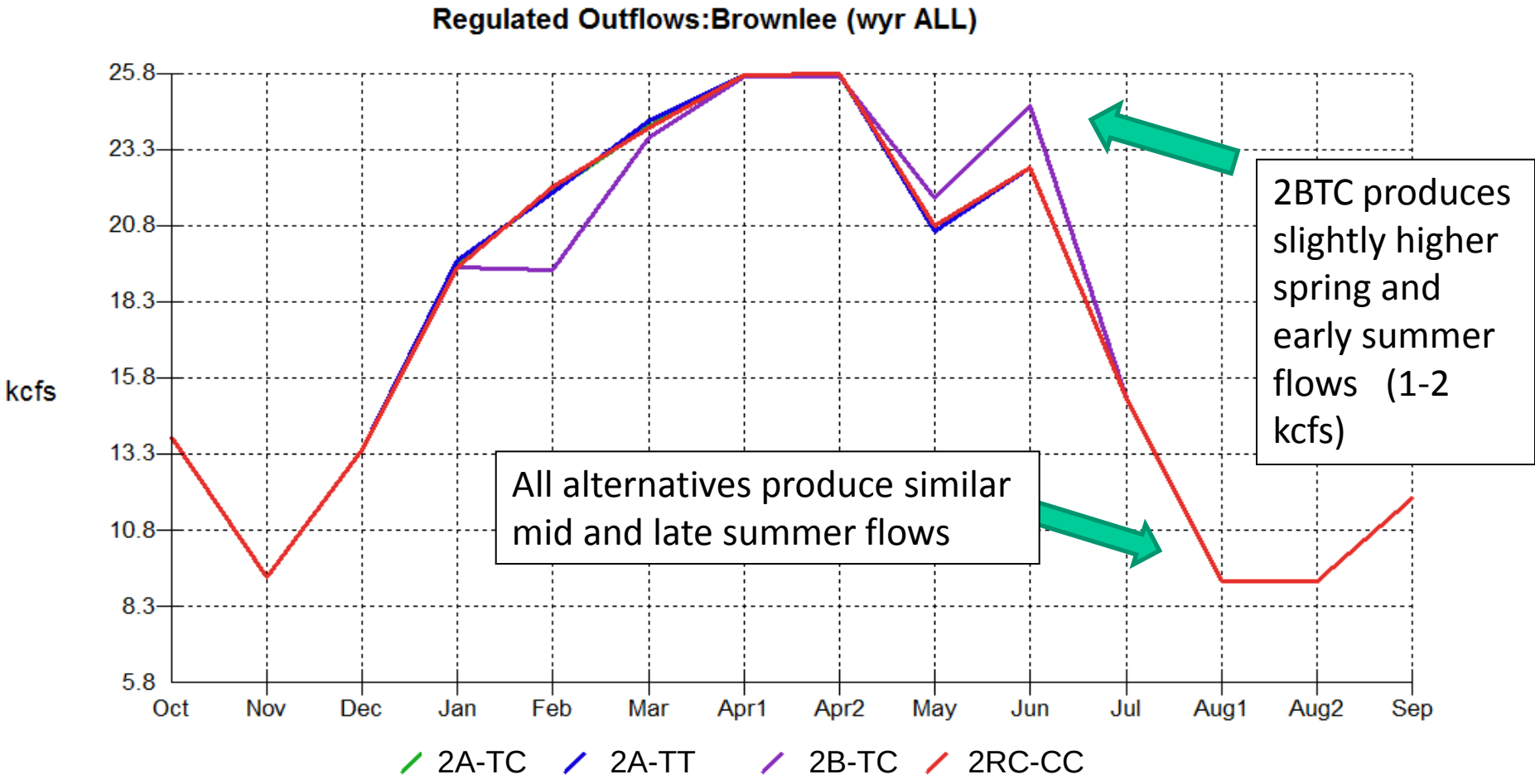
Iteration #2 Results
Basic Alternatives

Snake River Resident Fish Qualitative Analysis

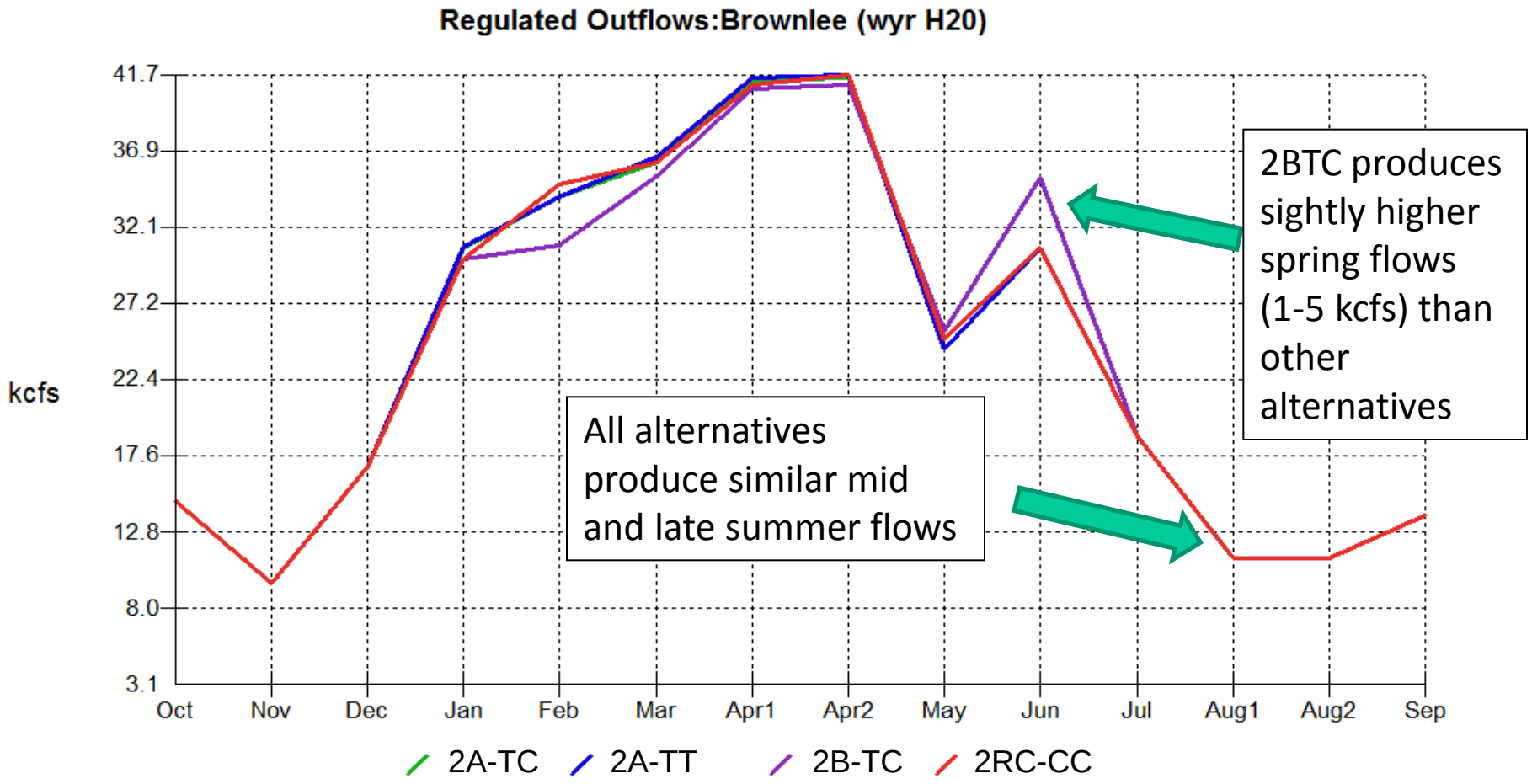
Idaho Power Company and

Idaho Department of Fish and Game

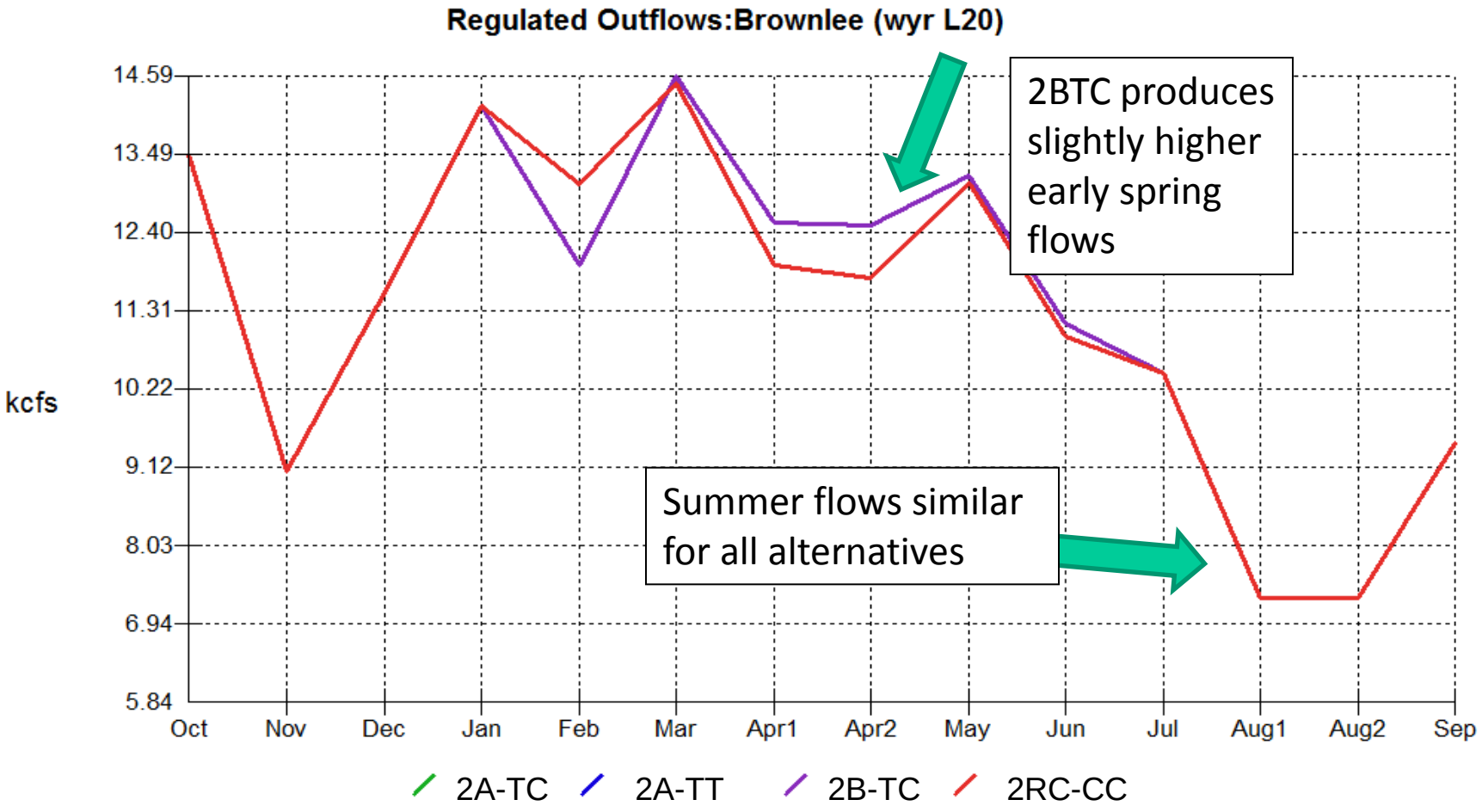
BROWNLEE Outflows – 70 Water Years



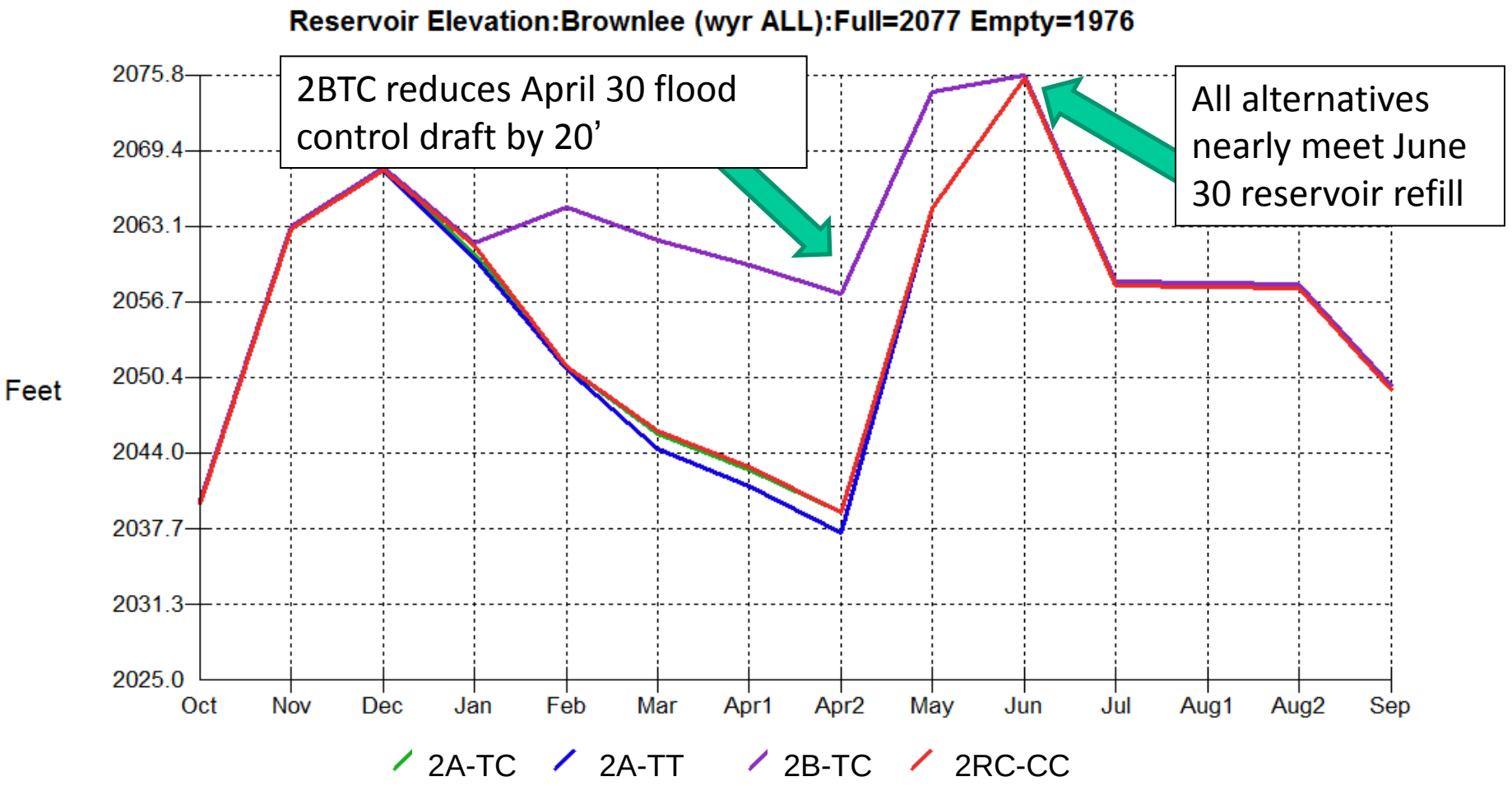
BROWNLEE
Outflows – 20% High Water Years



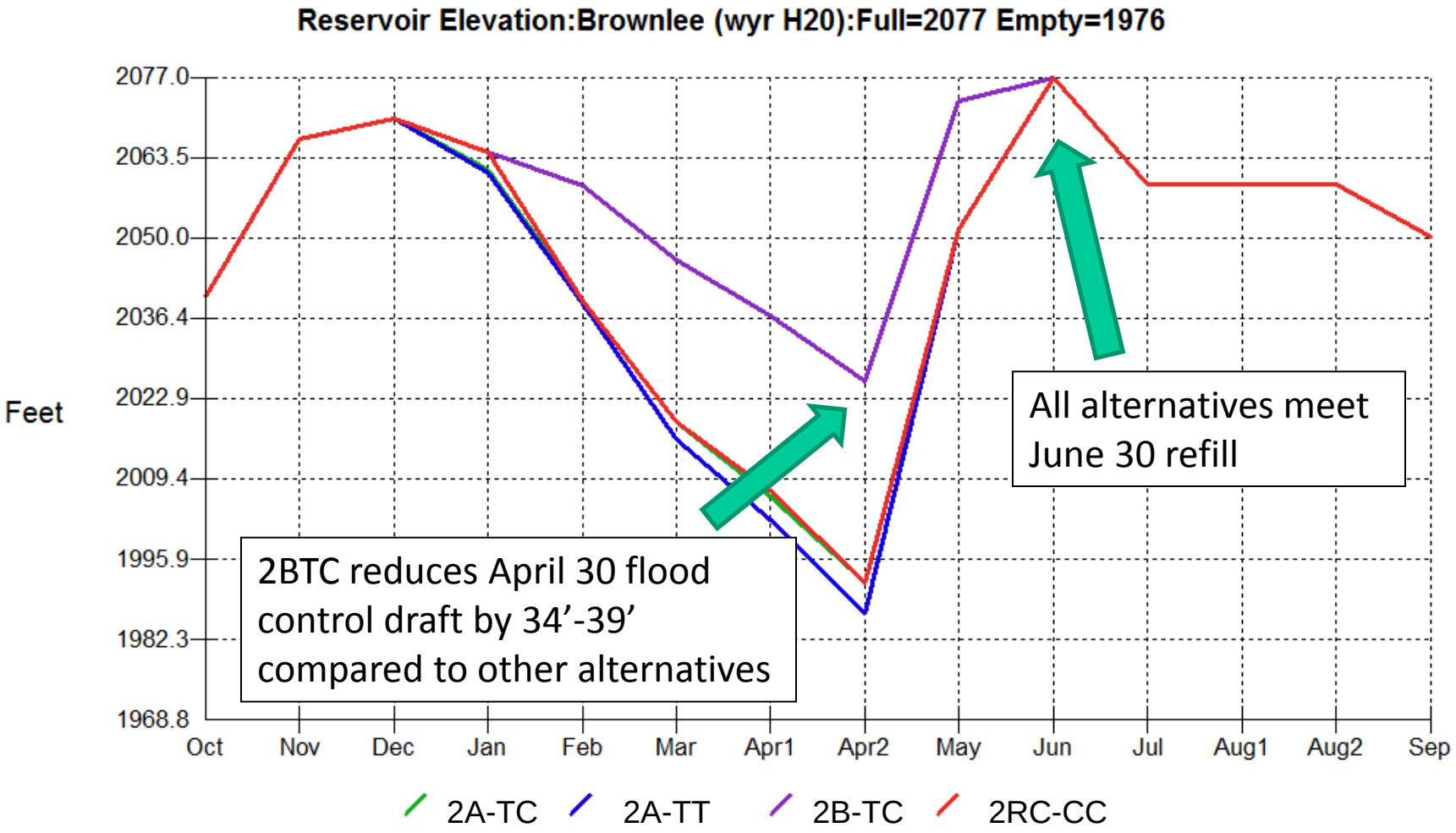
BROWNLEE
Outflows – 20% Low Water Years



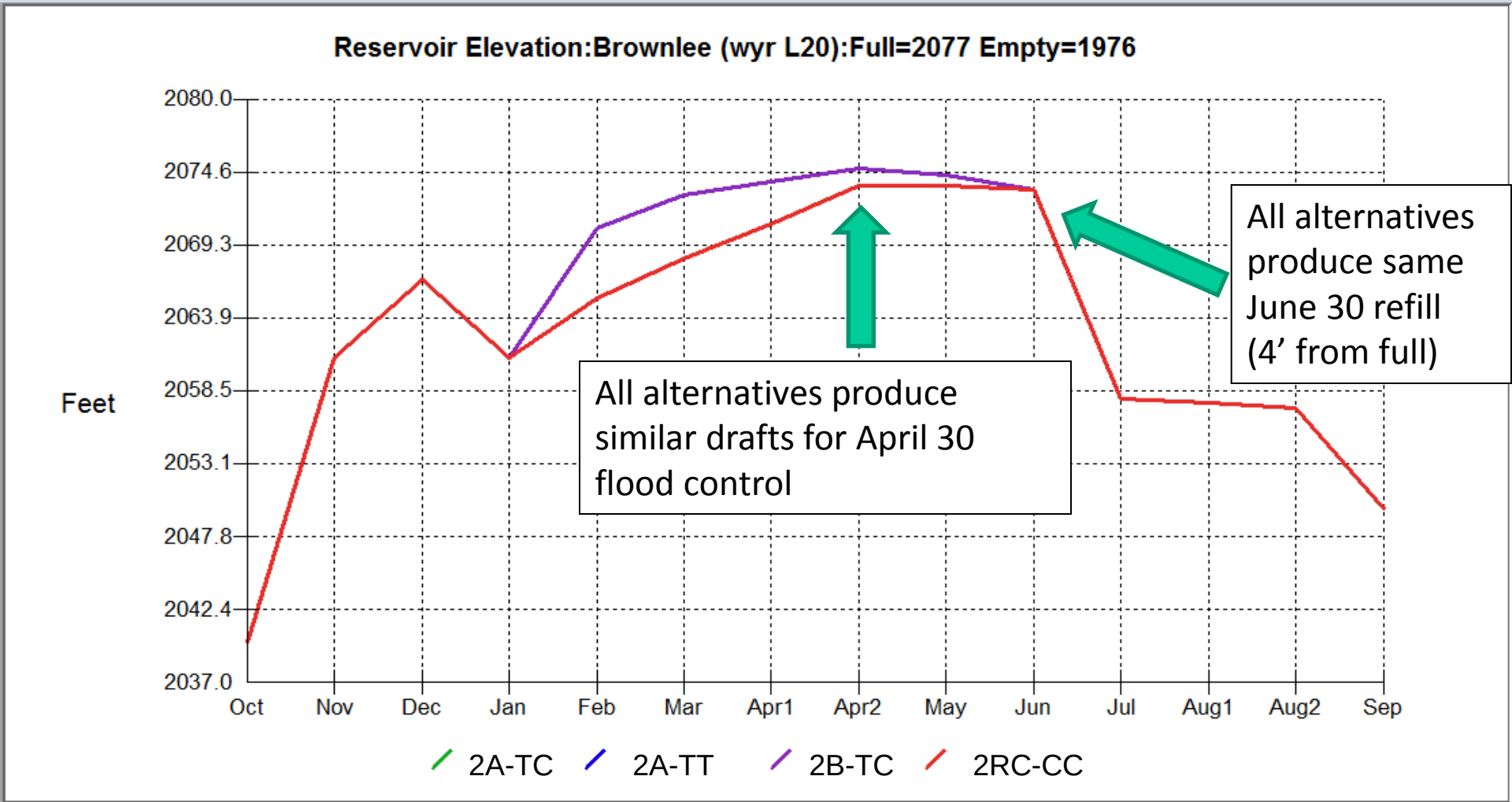
BROWNLEE
Elevation – 70 Water Years



BROWNLEE
Elevation – 20% High Water Years



BROWNLEE
Elevation – 20% Low Water Years



Idaho Power Qualitative Analysis

- Hells Canyon Outflows
  - The four alternatives were analyzed relative to Weighted Useable Area (WUA) of habitat available for white sturgeon adults, white sturgeon spawning and bull trout adults. WUA was estimated from habitat models developed by Chandler et al. (2003).
  - Differences among the 4 Alternatives relative to WUA and these species are very minimal and none of the scenarios would necessarily reduce or increase habitats for these key species.

Idaho Power Qualitative Analysis

- Hells Canyon Spill
  - Hells Canyon spill and potential effects from elevated Total Dissolved Gas (TDG) levels on aquatic species in the Snake River were examined relative to the duration of spill levels greater than 5 kcfs.
  - Spill levels exceeding this magnitude with existing gas abatement structures can result in TDG levels exceeding Idaho and Oregon state water quality standards of 110% saturation.
  - The four Alternatives do not differ relative to the duration exceeding this spill level.

Idaho Power Qualitative Analysis

- Brownlee Reservoir
  - The effects to resident fish in Brownlee Reservoir were based on a qualitative assessment on the potential to entrain crappie during periods of drawdown of the reservoir during flood control operations. The qualitative assessment is based on Richter et al. (2003)2 and Van Winkle et al. (2003).
  - In general, 2B-TC provides higher reservoir levels which are more likely to reduce the potential of fish entrainment.
  - Higher reservoir levels also reduce the amount of water necessary to re-fill Brownlee Reservoir when operators are released from flood control, which may provide better conditions for spawning centrarchids during the mid-May to mid-June periods.

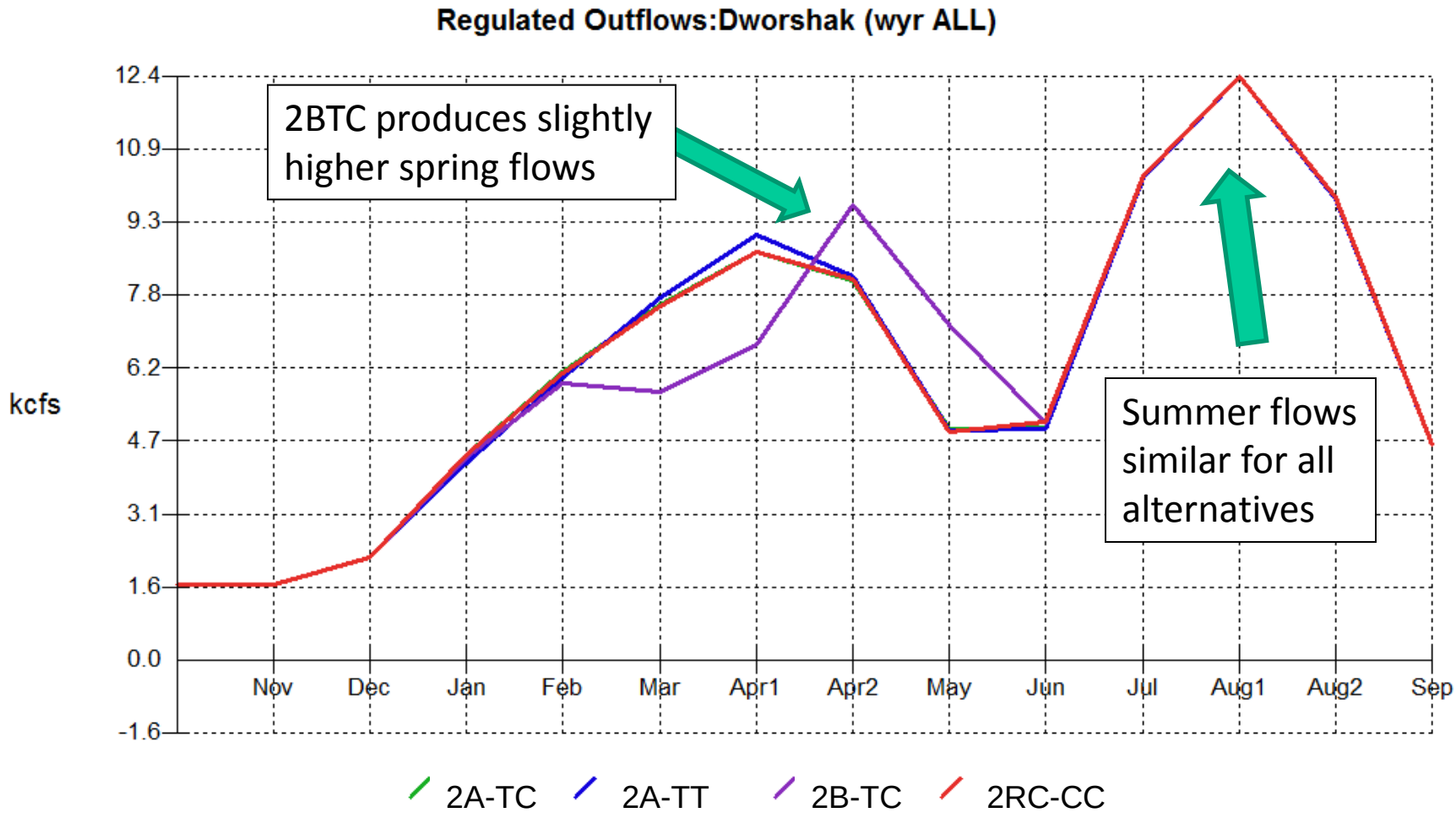
Idaho Power Qualitative Analysis

- Recreation
  - The effects to the fishery in Brownlee Reservoir were assessed relative to the periods of boat ramp availability.
  - 2B-TC provides greater boat ramp availability than the other scenarios because of the higher reservoir levels associated with this scenario.
  - Differences associated with 2A-TC, 2A-TT relative to current conditions are very minimal.

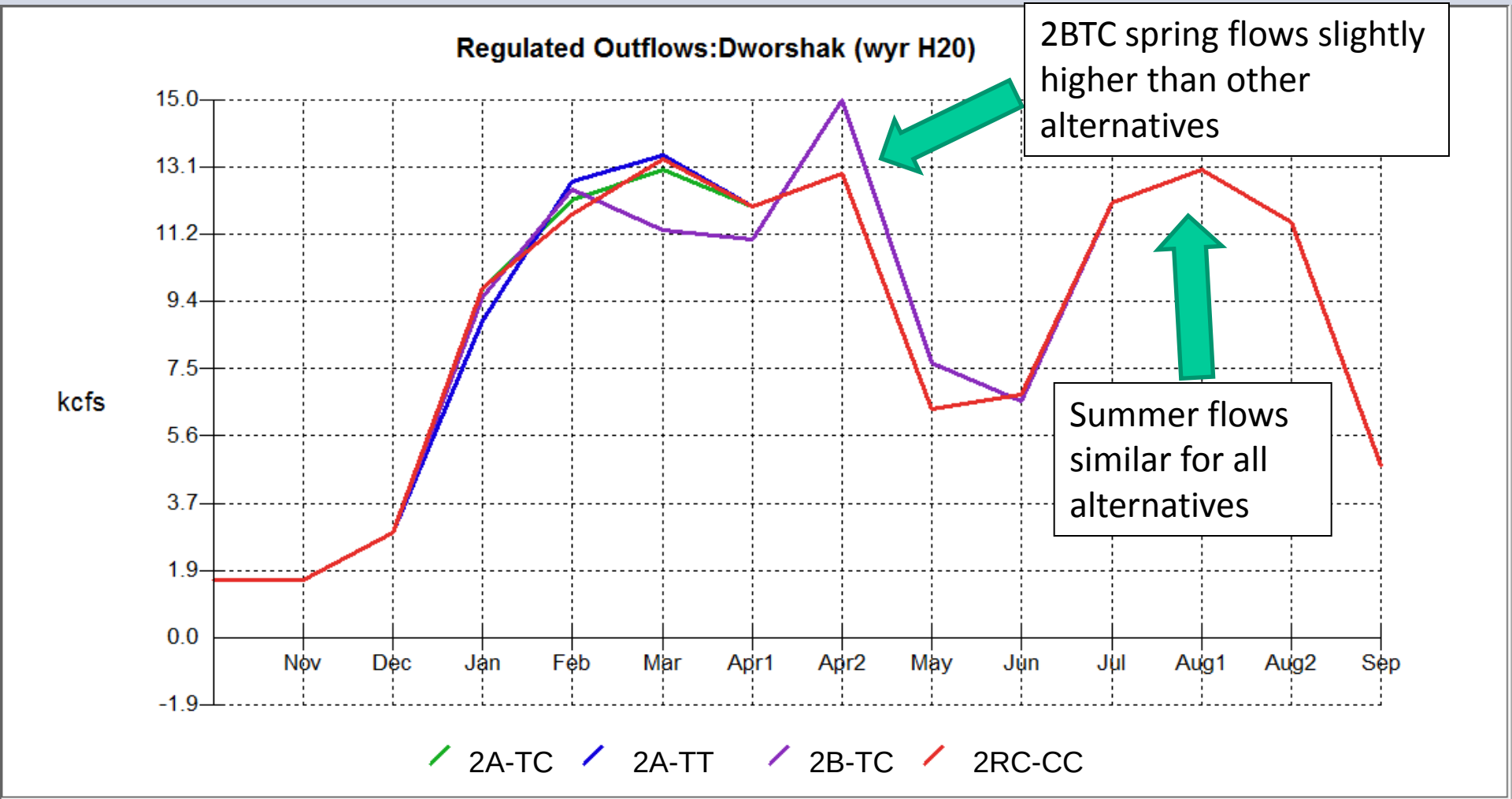
Idaho Department of Fish Game Qualitative Analysis

- **Brownlee Reservoir considerations**
  - 2B-TC could benefit the resident sportfish populations in Brownlee Reservoir (crappie and smallmouth bass) by stabilizing reservoir levels in early spring which would result in increased recruitment.
  - 2B-TC increases angler access at Spring Recreation Area and Steck Park boat launches. These boat launches become unusable at reservoir levels below 2053 feet and 2051 feet respectively.
  - 2B-TC would increase the amount of time these boat launches are usable during the peak spring and early summer fishing season.
  - 2A-TT would decrease the amount of time the Spring Creek and Steck Park boat launches are usable during the spring season.

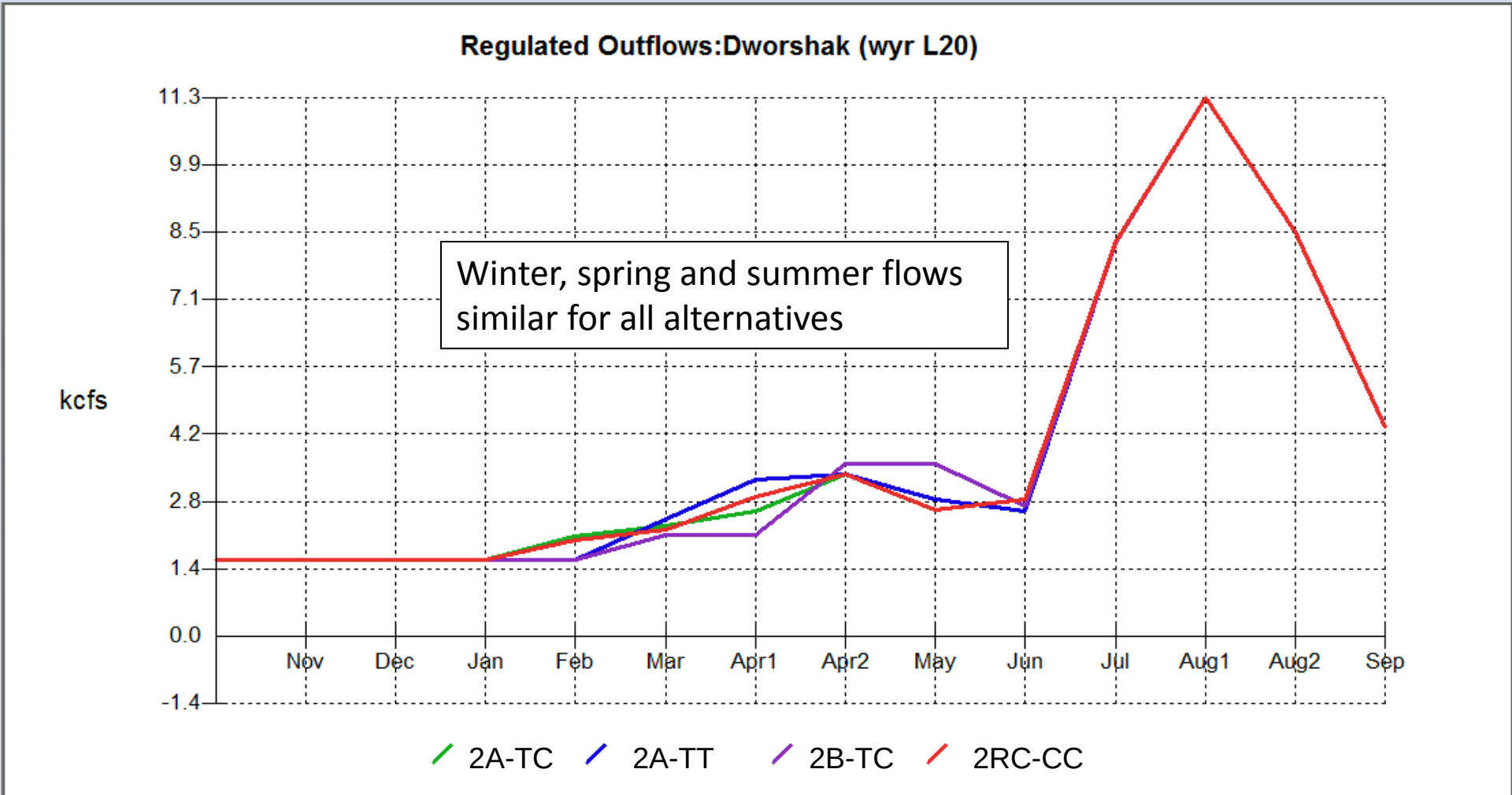
DWORSHAK (North Fork Clearwater River) Outflows – 70 Water Years



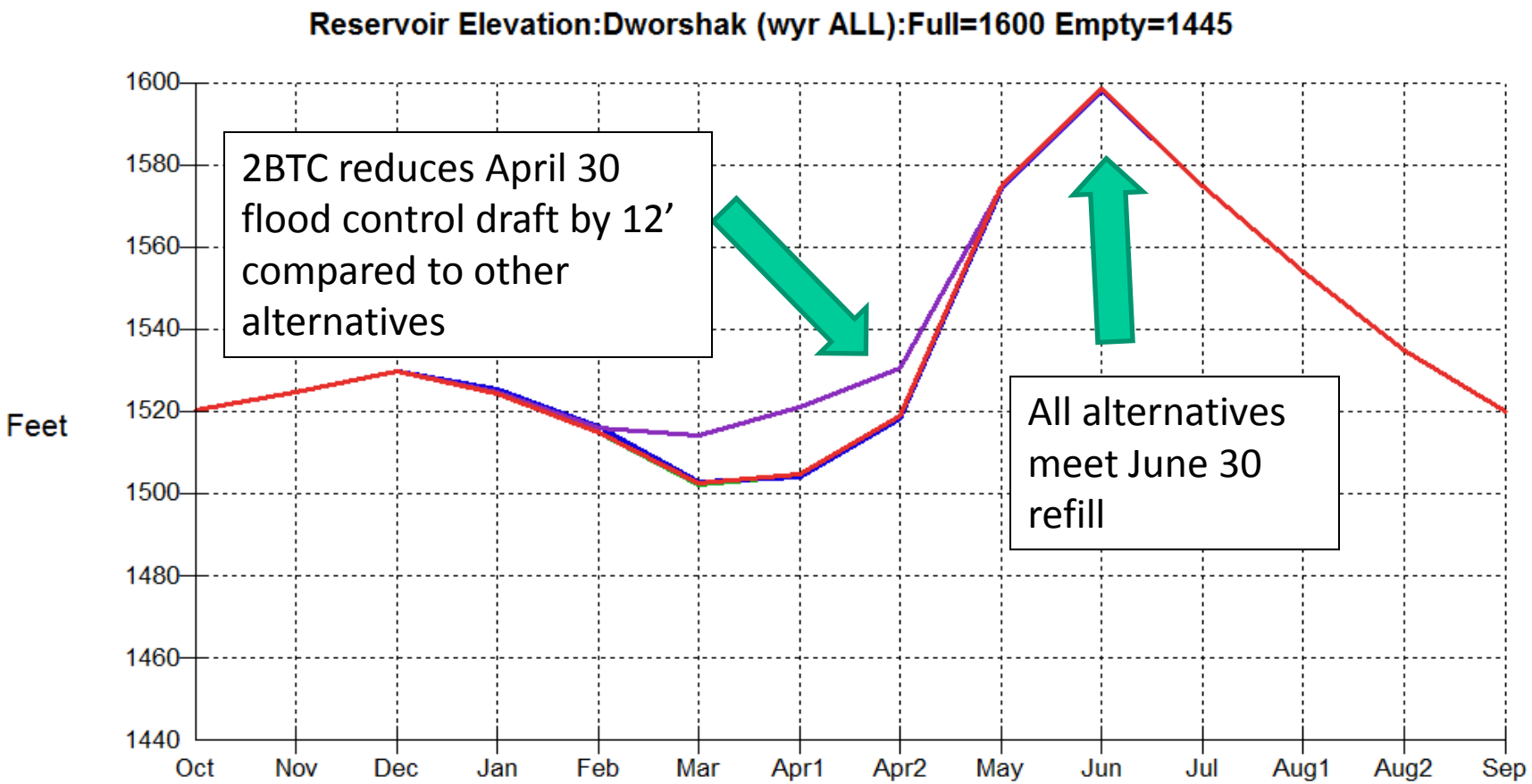
DWORSHAK (North Fork Clearwater River) Outflows – 20% High Water Years



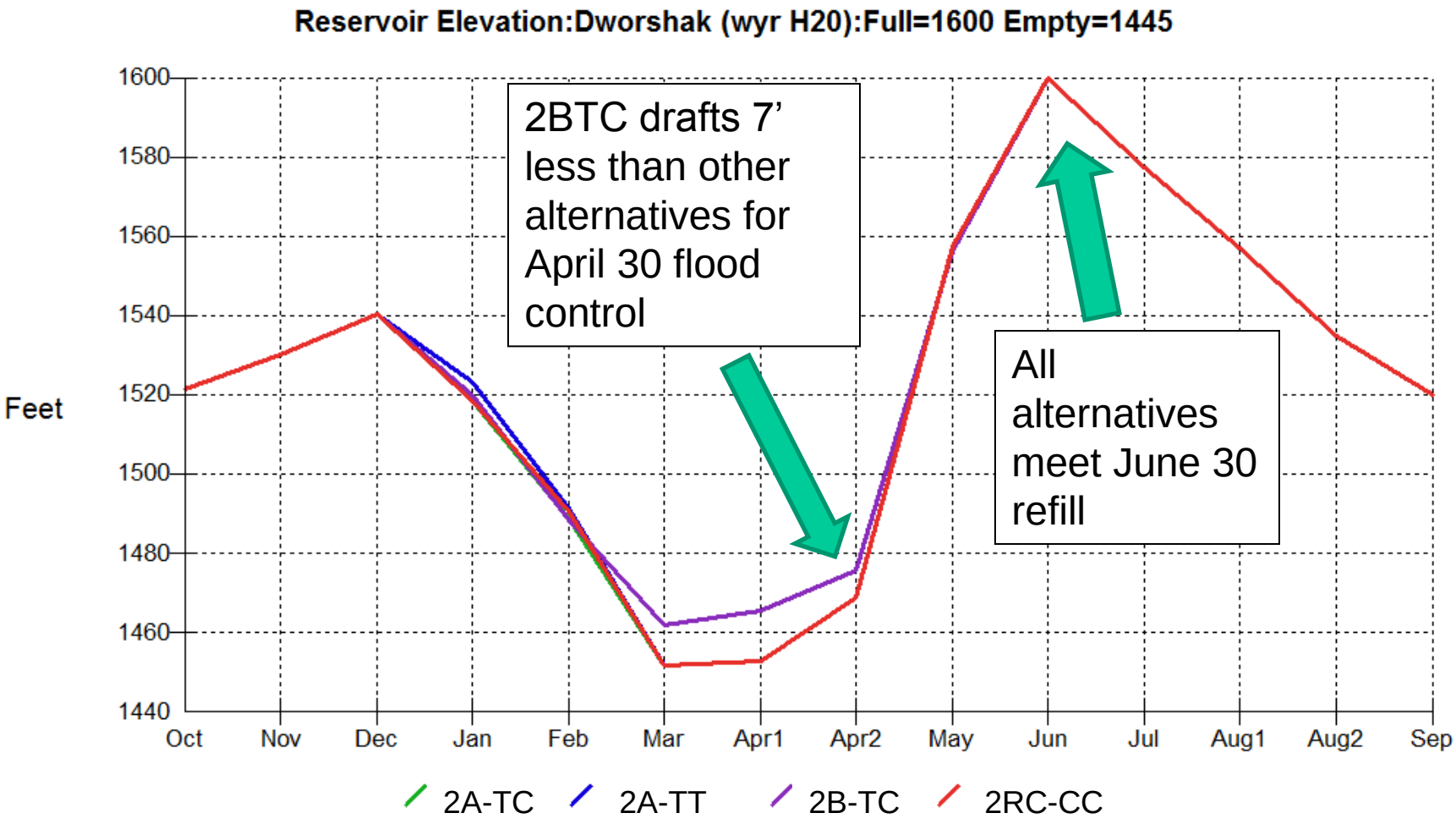
DWORSHAK (North Fork Clearwater River) Outflows – 20% Low Water Years



DWORSHAK (North Fork Clearwater River)
Elevation – 70 Water Years



DWORSHAK (North Fork Clearwater River)
Elevation – 20% High Water Years



DWORSHAK (North Fork Clearwater River)
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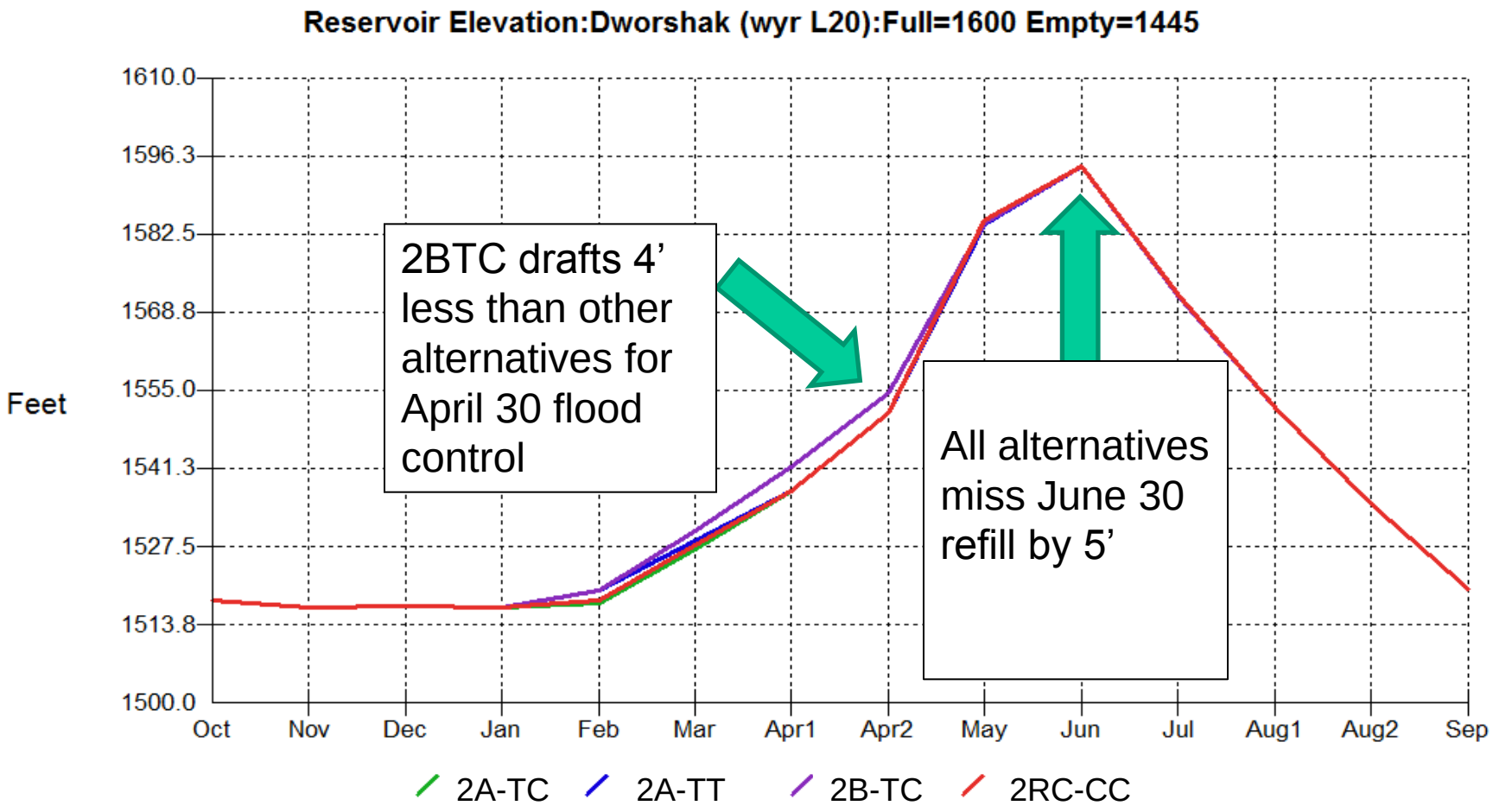
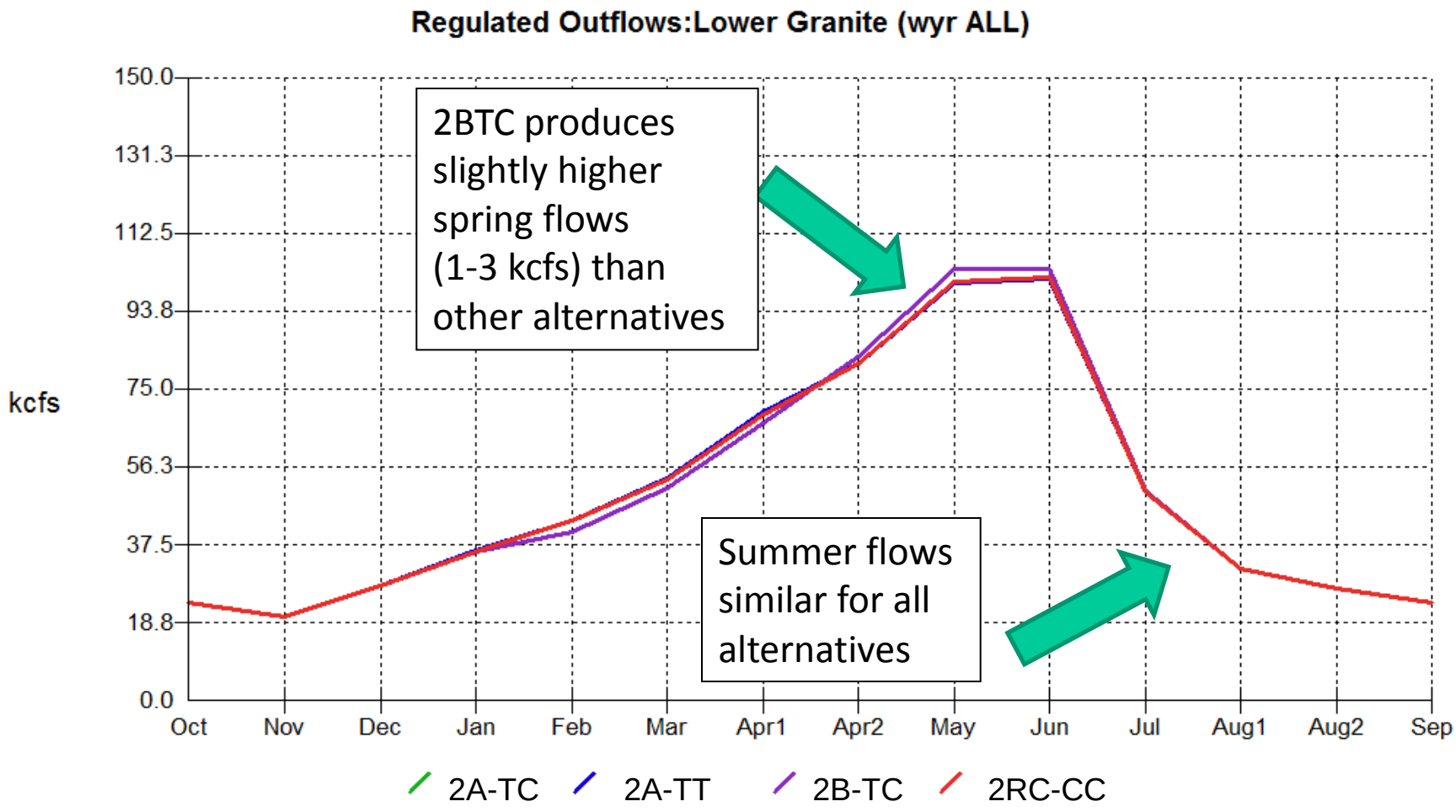


Idaho Department of Fish and Game Qualitative Analysis

- **Dworshak Reservoir considerations**
  - 2B-TC would likely reduce kokanee entrainment through Dworshak Dam by delaying higher outflows into the spring.
  - Kokanee are less concentrated near the dam in the spring as they begin to disperse into areas farther up the reservoir.
  - The other alternatives are similar to current operations and would likely not result in major changes to resident fish populations.

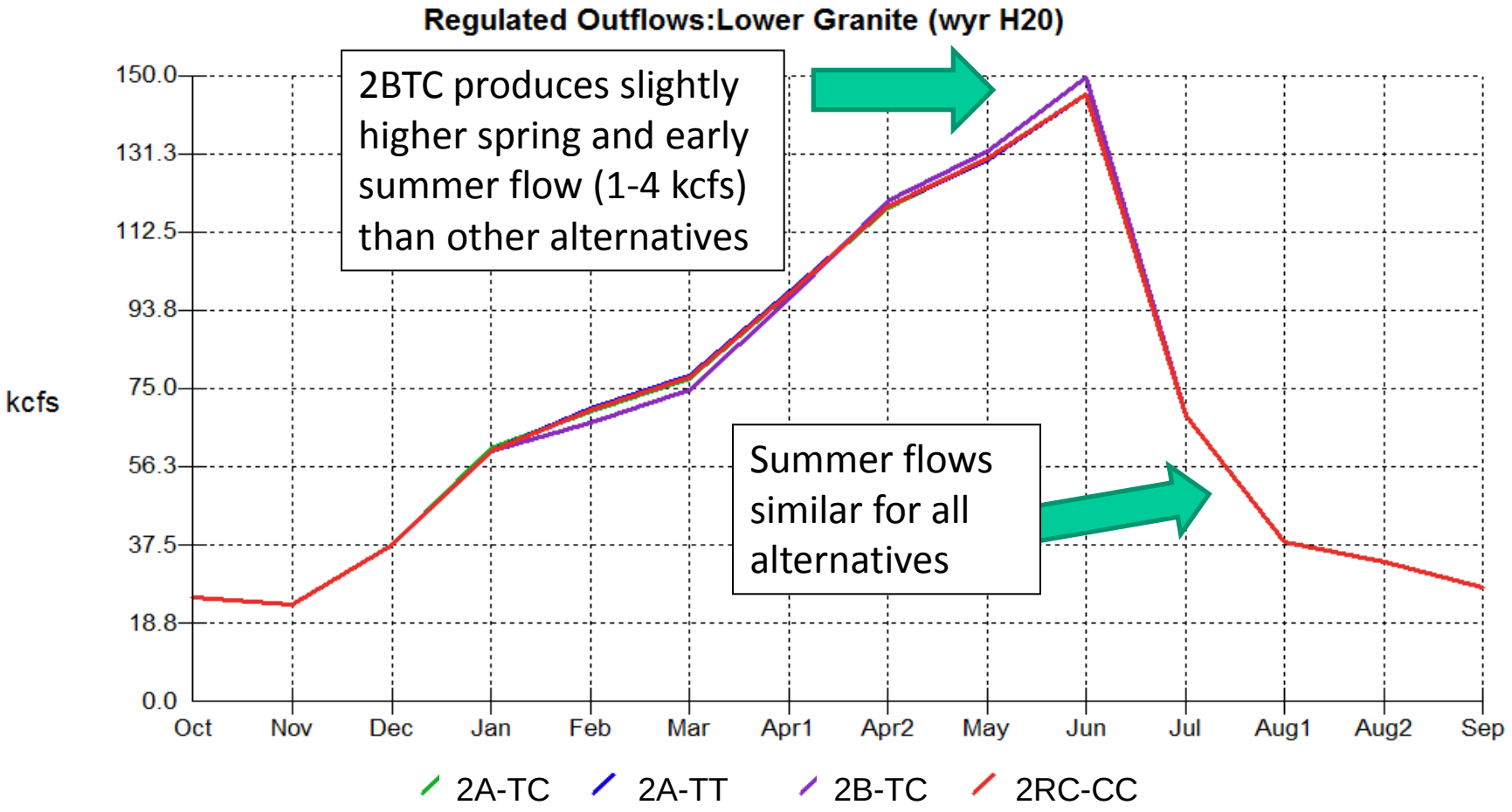
LOWER GRANITE

Outflows – 70 Water Years



LOWER GRANITE

Outflows – 20% High Water Years



LOWER GRANITE

Outflows – 20% Low Water Years